

Release notes for ENDF/B Development n-063_Eu_152
evaluation

ENDF
B-VII.dev

April 26, 2017

- checkr Warnings:

1. A previous error halted parsing of the current section
MAT=6328, MF= 1, MT=451 (1): Parsing stopped

```
ERROR(S) FOUND IN MAT=6328, MF= 1, MT=451
SECTION CANNOT BE CHECKED FROM SEQUENCE NUMBER 251 TO 306
```

- checkr Errors:

1. A variable is outside the allowed ENDF range
MAT=6328, MF= 1, MT=451 (0): Variable range

```
ERROR(S) FOUND IN MAT=6328, MF= 1, MT=451
MOD = 1 OUT OF RANGE 0 - 0 RECORD NUMBER 251
```

2. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 2, MT=151 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=6328, MF= 2, MT=151
SECTION 2/151 NOT IN DIRECTORY RECORD NUMBER 308
```

3. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 3, MT= 1 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=6328, MF= 3, MT= 1
SECTION 3/ 1 NOT IN DIRECTORY RECORD NUMBER 692
```

4. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 3, MT= 2 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=6328, MF= 3, MT= 2
SECTION 3/ 2 NOT IN DIRECTORY RECORD NUMBER 721
```

5. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 3, MT= 4 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=6328, MF= 3, MT= 4
SECTION 3/ 4 NOT IN DIRECTORY RECORD NUMBER 746
```

6. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 3, MT= 16 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=6328, MF= 3, MT= 16
SECTION 3/ 16 NOT IN DIRECTORY RECORD NUMBER 764
```

7. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 3, MT= 17 (0): Directory (b)

ERROR(S) FOUND IN MAT=6328, MF= 3, MT= 17
SECTION 3/ 17 NOT IN DIRECTORY RECORD NUMBER 775

8. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 3, MT= 22 (0): Directory (b)

ERROR(S) FOUND IN MAT=6328, MF= 3, MT= 22
SECTION 3/ 22 NOT IN DIRECTORY RECORD NUMBER 782

9. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 3, MT= 28 (0): Directory (b)

ERROR(S) FOUND IN MAT=6328, MF= 3, MT= 28
SECTION 3/ 28 NOT IN DIRECTORY RECORD NUMBER 795

10. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 3, MT= 32 (0): Directory (b)

ERROR(S) FOUND IN MAT=6328, MF= 3, MT= 32
SECTION 3/ 32 NOT IN DIRECTORY RECORD NUMBER 807

11. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 3, MT= 33 (0): Directory (b)

ERROR(S) FOUND IN MAT=6328, MF= 3, MT= 33
SECTION 3/ 33 NOT IN DIRECTORY RECORD NUMBER 817

12. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 3, MT= 51 (0): Directory (b)

ERROR(S) FOUND IN MAT=6328, MF= 3, MT= 51
SECTION 3/ 51 NOT IN DIRECTORY RECORD NUMBER 826

13. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 3, MT= 52 (0): Directory (b)

ERROR(S) FOUND IN MAT=6328, MF= 3, MT= 52
SECTION 3/ 52 NOT IN DIRECTORY RECORD NUMBER 844

14. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 3, MT= 53 (0): Directory (b)

ERROR(S) FOUND IN MAT=6328, MF= 3, MT= 53
SECTION 3/ 53 NOT IN DIRECTORY RECORD NUMBER 862

15. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 3, MT= 54 (0): Directory (b)

- | | | |
|---|---------------|-----|
| ERROR(S) FOUND IN MAT=6328, MF= 3, MT= 54 | RECORD NUMBER | 879 |
| SECTION 3/ 54 NOT IN DIRECTORY | | |
16. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 3, MT= 55 (0): Directory (b)
- | | | |
|---|---------------|-----|
| ERROR(S) FOUND IN MAT=6328, MF= 3, MT= 55 | RECORD NUMBER | 896 |
| SECTION 3/ 55 NOT IN DIRECTORY | | |
17. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 3, MT= 56 (0): Directory (b)
- | | | |
|---|---------------|-----|
| ERROR(S) FOUND IN MAT=6328, MF= 3, MT= 56 | RECORD NUMBER | 912 |
| SECTION 3/ 56 NOT IN DIRECTORY | | |
18. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 3, MT= 57 (0): Directory (b)
- | | | |
|---|---------------|-----|
| ERROR(S) FOUND IN MAT=6328, MF= 3, MT= 57 | RECORD NUMBER | 928 |
| SECTION 3/ 57 NOT IN DIRECTORY | | |
19. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 3, MT= 58 (0): Directory (b)
- | | | |
|---|---------------|-----|
| ERROR(S) FOUND IN MAT=6328, MF= 3, MT= 58 | RECORD NUMBER | 943 |
| SECTION 3/ 58 NOT IN DIRECTORY | | |
20. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 3, MT= 59 (0): Directory (b)
- | | | |
|---|---------------|-----|
| ERROR(S) FOUND IN MAT=6328, MF= 3, MT= 59 | RECORD NUMBER | 958 |
| SECTION 3/ 59 NOT IN DIRECTORY | | |
21. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 3, MT= 60 (0): Directory (b)
- | | | |
|---|---------------|-----|
| ERROR(S) FOUND IN MAT=6328, MF= 3, MT= 60 | RECORD NUMBER | 973 |
| SECTION 3/ 60 NOT IN DIRECTORY | | |
22. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 3, MT= 61 (0): Directory (b)
- | | | |
|---|---------------|-----|
| ERROR(S) FOUND IN MAT=6328, MF= 3, MT= 61 | RECORD NUMBER | 987 |
| SECTION 3/ 61 NOT IN DIRECTORY | | |
23. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 3, MT= 91 (0): Directory (b)

- | | | |
|--|---|--------------------|
| | ERROR(S) FOUND IN MAT=6328, MF= 3, MT= 91 | |
| | SECTION 3/ 91 NOT IN DIRECTORY | RECORD NUMBER 1001 |
24. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 3, MT=102 (0): Directory (b)
- | | | |
|--|---|--------------------|
| | ERROR(S) FOUND IN MAT=6328, MF= 3, MT=102 | |
| | SECTION 3/102 NOT IN DIRECTORY | RECORD NUMBER 1014 |
25. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 3, MT=103 (0): Directory (b)
- | | | |
|--|---|--------------------|
| | ERROR(S) FOUND IN MAT=6328, MF= 3, MT=103 | |
| | SECTION 3/103 NOT IN DIRECTORY | RECORD NUMBER 1035 |
26. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 3, MT=104 (0): Directory (b)
- | | | |
|--|---|--------------------|
| | ERROR(S) FOUND IN MAT=6328, MF= 3, MT=104 | |
| | SECTION 3/104 NOT IN DIRECTORY | RECORD NUMBER 1050 |
27. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 3, MT=105 (0): Directory (b)
- | | | |
|--|---|--------------------|
| | ERROR(S) FOUND IN MAT=6328, MF= 3, MT=105 | |
| | SECTION 3/105 NOT IN DIRECTORY | RECORD NUMBER 1063 |
28. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 3, MT=106 (0): Directory (b)
- | | | |
|--|---|--------------------|
| | ERROR(S) FOUND IN MAT=6328, MF= 3, MT=106 | |
| | SECTION 3/106 NOT IN DIRECTORY | RECORD NUMBER 1077 |
29. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 3, MT=107 (0): Directory (b)
- | | | |
|--|---|--------------------|
| | ERROR(S) FOUND IN MAT=6328, MF= 3, MT=107 | |
| | SECTION 3/107 NOT IN DIRECTORY | RECORD NUMBER 1088 |
30. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 4, MT= 2 (0): Directory (b)
- | | | |
|--|--|--------------------|
| | ERROR(S) FOUND IN MAT=6328, MF= 4, MT= 2 | |
| | SECTION 4/ 2 NOT IN DIRECTORY | RECORD NUMBER 1104 |
31. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 4, MT= 16 (0): Directory (b)

- | | | |
|---|---------------|------|
| ERROR(S) FOUND IN MAT=6328, MF= 4, MT= 16 | RECORD NUMBER | 1271 |
| SECTION 4/ 16 NOT IN DIRECTORY | | |
32. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 4, MT= 17 (0): Directory (b)
- | | | |
|---|---------------|------|
| ERROR(S) FOUND IN MAT=6328, MF= 4, MT= 17 | RECORD NUMBER | 1282 |
| SECTION 4/ 17 NOT IN DIRECTORY | | |
33. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 4, MT= 22 (0): Directory (b)
- | | | |
|---|---------------|------|
| ERROR(S) FOUND IN MAT=6328, MF= 4, MT= 22 | RECORD NUMBER | 1293 |
| SECTION 4/ 22 NOT IN DIRECTORY | | |
34. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 4, MT= 28 (0): Directory (b)
- | | | |
|---|---------------|------|
| ERROR(S) FOUND IN MAT=6328, MF= 4, MT= 28 | RECORD NUMBER | 1304 |
| SECTION 4/ 28 NOT IN DIRECTORY | | |
35. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 4, MT= 32 (0): Directory (b)
- | | | |
|---|---------------|------|
| ERROR(S) FOUND IN MAT=6328, MF= 4, MT= 32 | RECORD NUMBER | 1315 |
| SECTION 4/ 32 NOT IN DIRECTORY | | |
36. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 4, MT= 33 (0): Directory (b)
- | | | |
|---|---------------|------|
| ERROR(S) FOUND IN MAT=6328, MF= 4, MT= 33 | RECORD NUMBER | 1326 |
| SECTION 4/ 33 NOT IN DIRECTORY | | |
37. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 4, MT= 51 (0): Directory (b)
- | | | |
|---|---------------|------|
| ERROR(S) FOUND IN MAT=6328, MF= 4, MT= 51 | RECORD NUMBER | 1337 |
| SECTION 4/ 51 NOT IN DIRECTORY | | |
38. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 4, MT= 52 (0): Directory (b)
- | | | |
|---|---------------|------|
| ERROR(S) FOUND IN MAT=6328, MF= 4, MT= 52 | RECORD NUMBER | 1365 |
| SECTION 4/ 52 NOT IN DIRECTORY | | |
39. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 4, MT= 53 (0): Directory (b)

- | | | |
|---|---------------|------|
| ERROR(S) FOUND IN MAT=6328, MF= 4, MT= 53 | RECORD NUMBER | 1393 |
| SECTION 4/ 53 NOT IN DIRECTORY | | |
40. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 4, MT= 54 (0): Directory (b)
- | | | |
|---|---------------|------|
| ERROR(S) FOUND IN MAT=6328, MF= 4, MT= 54 | RECORD NUMBER | 1421 |
| SECTION 4/ 54 NOT IN DIRECTORY | | |
41. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 4, MT= 55 (0): Directory (b)
- | | | |
|---|---------------|------|
| ERROR(S) FOUND IN MAT=6328, MF= 4, MT= 55 | RECORD NUMBER | 1449 |
| SECTION 4/ 55 NOT IN DIRECTORY | | |
42. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 4, MT= 56 (0): Directory (b)
- | | | |
|---|---------------|------|
| ERROR(S) FOUND IN MAT=6328, MF= 4, MT= 56 | RECORD NUMBER | 1477 |
| SECTION 4/ 56 NOT IN DIRECTORY | | |
43. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 4, MT= 57 (0): Directory (b)
- | | | |
|---|---------------|------|
| ERROR(S) FOUND IN MAT=6328, MF= 4, MT= 57 | RECORD NUMBER | 1505 |
| SECTION 4/ 57 NOT IN DIRECTORY | | |
44. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 4, MT= 58 (0): Directory (b)
- | | | |
|---|---------------|------|
| ERROR(S) FOUND IN MAT=6328, MF= 4, MT= 58 | RECORD NUMBER | 1533 |
| SECTION 4/ 58 NOT IN DIRECTORY | | |
45. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 4, MT= 59 (0): Directory (b)
- | | | |
|---|---------------|------|
| ERROR(S) FOUND IN MAT=6328, MF= 4, MT= 59 | RECORD NUMBER | 1561 |
| SECTION 4/ 59 NOT IN DIRECTORY | | |
46. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 4, MT= 60 (0): Directory (b)
- | | | |
|---|---------------|------|
| ERROR(S) FOUND IN MAT=6328, MF= 4, MT= 60 | RECORD NUMBER | 1589 |
| SECTION 4/ 60 NOT IN DIRECTORY | | |
47. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 4, MT= 61 (0): Directory (b)

- | | | |
|---|---------------|------|
| ERROR(S) FOUND IN MAT=6328, MF= 4, MT= 61 | RECORD NUMBER | 1617 |
| SECTION 4/ 61 NOT IN DIRECTORY | | |
48. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 4, MT= 91 (0): Directory (b)
- | | | |
|---|---------------|------|
| ERROR(S) FOUND IN MAT=6328, MF= 4, MT= 91 | RECORD NUMBER | 1645 |
| SECTION 4/ 91 NOT IN DIRECTORY | | |
49. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 5, MT= 16 (0): Directory (b)
- | | | |
|---|---------------|------|
| ERROR(S) FOUND IN MAT=6328, MF= 5, MT= 16 | RECORD NUMBER | 1674 |
| SECTION 5/ 16 NOT IN DIRECTORY | | |
50. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 5, MT= 17 (0): Directory (b)
- | | | |
|---|---------------|------|
| ERROR(S) FOUND IN MAT=6328, MF= 5, MT= 17 | RECORD NUMBER | 1765 |
| SECTION 5/ 17 NOT IN DIRECTORY | | |
51. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 5, MT= 22 (0): Directory (b)
- | | | |
|---|---------------|------|
| ERROR(S) FOUND IN MAT=6328, MF= 5, MT= 22 | RECORD NUMBER | 1805 |
| SECTION 5/ 22 NOT IN DIRECTORY | | |
52. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 5, MT= 28 (0): Directory (b)
- | | | |
|---|---------------|------|
| ERROR(S) FOUND IN MAT=6328, MF= 5, MT= 28 | RECORD NUMBER | 2060 |
| SECTION 5/ 28 NOT IN DIRECTORY | | |
53. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 5, MT= 32 (0): Directory (b)
- | | | |
|---|---------------|------|
| ERROR(S) FOUND IN MAT=6328, MF= 5, MT= 32 | RECORD NUMBER | 2204 |
| SECTION 5/ 32 NOT IN DIRECTORY | | |
54. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 5, MT= 33 (0): Directory (b)
- | | | |
|---|---------------|------|
| ERROR(S) FOUND IN MAT=6328, MF= 5, MT= 33 | RECORD NUMBER | 2298 |
| SECTION 5/ 33 NOT IN DIRECTORY | | |
55. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=6328, MF= 5, MT= 91 (0): Directory (b)

• psyche Warnings:

1. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 6.20000E+01. STRENGTH FUNCTION IS 5.98221E-04 / STRENGTH FUNCTION 5.98221E-04 / LIES OUTSIDE LIMITS 1.00000E-05 TO 1.50000E-04 (0): URR str. ftn.

FILE 2
SECTION 151
ENERGY = 6.20000E+01. STRENGTH FUNCTION IS 5.98221E-04
STRENGTH FUNCTION 5.98221E-04
LIES OUTSIDE LIMITS 1.00000E-05 TO 1.50000E-04

2. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 6.20000E+01. STRENGTH FUNCTION IS 3.60000E-04 / STRENGTH FUNCTION 3.60000E-04 / LIES OUTSIDE LIMITS 1.00000E-05 TO 1.50000E-04 (0): URR str. ftn.

FILE 2
SECTION 151
ENERGY = 6.20000E+01. STRENGTH FUNCTION IS 3.60000E-04
STRENGTH FUNCTION 3.60000E-04
LIES OUTSIDE LIMITS 1.00000E-05 TO 1.50000E-04

3. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 6.20000E+01. STRENGTH FUNCTION IS 6.22222E-04 / STRENGTH FUNCTION 6.22222E-04 / LIES OUTSIDE LIMITS 1.00000E-05 TO 1.50000E-04 (0): URR str. ftn.

FILE 2
SECTION 151
ENERGY = 6.20000E+01. STRENGTH FUNCTION IS 6.22222E-04
STRENGTH FUNCTION 6.22222E-04
LIES OUTSIDE LIMITS 1.00000E-05 TO 1.50000E-04

4. Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 6.20000E+01. STRENGTH FUNCTION IS 5.83784E-04 / ENERGY = 6.20000E+01. STRENGTH FUNCTION IS 5.83784E-04 / DENSITY 3.70000E+00 SHOULD BE 3.58396E+00 (0): URR dens. (a)

FILE 2
SECTION 151
ENERGY = 6.20000E+01. STRENGTH FUNCTION IS 5.83784E-04
ENERGY = 6.20000E+01. STRENGTH FUNCTION IS 5.83784E-04
DENSITY 3.70000E+00 SHOULD BE 3.58396E+00

5. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 6.20000E+01. STRENGTH FUNCTION IS 5.83784E-04 / STRENGTH FUNCTION 5.83784E-04 / LIES OUTSIDE LIMITS 1.00000E-05 TO 1.50000E-04 (0): URR str. ftn.

FILE 2
SECTION 151
ENERGY = 6.20000E+01. STRENGTH FUNCTION IS 5.83784E-04
STRENGTH FUNCTION 5.83784E-04
LIES OUTSIDE LIMITS 1.00000E-05 TO 1.50000E-04

6. Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 6.20000E+01. STRENGTH FUNCTION IS 2.23964E-04 / ENERGY = 6.20000E+01. STRENGTH FUNCTION IS 2.23964E-04 / DENSITY 8.93000E+00 SHOULD BE 9.50000E-01 (0): URR dens. (a)

FILE 2
SECTION 151
ENERGY = 6.20000E+01. STRENGTH FUNCTION IS 2.23964E-04
ENERGY = 6.20000E+01. STRENGTH FUNCTION IS 2.23964E-04
DENSITY 8.93000E+00 SHOULD BE 9.50000E-01

7. Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 6.20000E+01. STRENGTH FUNCTION IS 2.25000E-04 / ENERGY = 6.20000E+01. STRENGTH FUNCTION IS 2.25000E-04 / DENSITY 6.00000E+00 SHOULD BE 6.33333E-01 (0): URR dens. (a)

FILE 2
SECTION 151
ENERGY = 6.20000E+01. STRENGTH FUNCTION IS 2.25000E-04
ENERGY = 6.20000E+01. STRENGTH FUNCTION IS 2.25000E-04
DENSITY 6.00000E+00 SHOULD BE 6.33333E-01

8. Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 6.20000E+01. STRENGTH FUNCTION IS 3.04356E-04 / ENERGY = 6.20000E+01. STRENGTH FUNCTION IS 3.04356E-04 / DENSITY 4.52000E+00 SHOULD BE 4.75000E-01 (0): URR dens. (a)

FILE 2
SECTION 151
ENERGY = 6.20000E+01. STRENGTH FUNCTION IS 3.04356E-04
ENERGY = 6.20000E+01. STRENGTH FUNCTION IS 3.04356E-04
DENSITY 4.52000E+00 SHOULD BE 4.75000E-01

9. Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 6.20000E+01. STRENGTH FUNCTION IS 3.01370E-04 / ENERGY = 6.20000E+01. STRENGTH FUNCTION IS 3.01370E-04 / DENSITY 3.65000E+00 SHOULD BE 3.80000E-01 (0): URR dens. (a)

FILE 2
SECTION 151
ENERGY = 6.20000E+01. STRENGTH FUNCTION IS 3.01370E-04
ENERGY = 6.20000E+01. STRENGTH FUNCTION IS 3.01370E-04
DENSITY 3.65000E+00 SHOULD BE 3.80000E-01

10. Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 6.20000E+01. STRENGTH FUNCTION IS 3.28947E-04 / ENERGY = 6.20000E+01. STRENGTH FUNCTION IS 3.28947E-04 / DENSITY 3.04000E+00 SHOULD BE 3.16667E-01 (0): URR dens. (a)

```

FILE 2
SECTION 151
ENERGY = 6.20000E+01. STRENGTH FUNCTION IS 3.28947E-04
ENERGY = 6.20000E+01. STRENGTH FUNCTION IS 3.28947E-04
DENSITY 3.04000E+00 SHOULD BE 3.16667E-01

```

11. Non-threshold reaction with Q value differing from PSYCHE's expectations
FILE 3 / SECTION 22 / THE CALCULATED Q 1.46619E+06 DISSAGREES WITH THE GIVEN Q 1.56409E+06 (0): Iffy Q

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FILE 3
SECTION 22
THE CALCULATED Q 1.46619E+06 DISSAGREES WITH THE GIVEN Q 1.56409E+06

```

12. Non-threshold reaction with Q value differing from PSYCHE's expectations
FILE 3 / SECTION 103 / THE CALCULATED Q 2.51405E+06 DISSAGREES WITH THE GIVEN Q 2.65945E+06 (0): Iffy Q

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FILE 3
SECTION 103
THE CALCULATED Q 2.51405E+06 DISSAGREES WITH THE GIVEN Q 2.65945E+06

```

- fudge-4.0 Warnings:

1. Missing a channel with a particular angular momenta combination
resonances / resolved / MultiLevelBreitWigner (Error # 0): missingResonanceChannel

WARNING: Missing a channel with angular momenta combination L = 0, J = 1.5 and S = 1.5 for "capture"

2. Potential scattering hasn't converted, you need more L's!
resonances / resolved (Error # 1): potentialScatteringNotConverged

WARNING: Potential scattering hasn't converged by L=0 at E=62.0 eV, xs[0]/xs[0]=100.0% > 0.1%

3. The URR for this spin group needs higher energy resolution for correct representation of the average cross section
resonances / unresolved (Error # 0): URRinsufficientEnergyGrid

WARNING: More points needed in L=0 J=2.5 unresolved widths between 62. eV and 6.e2 eV
 WARNING: More points needed in L=0 J=3.5 unresolved widths between 62. eV and 6.e2 eV
 WARNING: More points needed in L=1 J=1.5 unresolved widths between 62. eV and 6.e2 eV
 WARNING: More points needed in L=1 J=2.5 unresolved widths between 62. eV and 6.e2 eV
 ... plus 8 more instances of this message

4. Cross section does not match sum of linked reaction cross sections
crossSectionSum label 0: total (Error # 0): CS Sum.

WARNING: Cross section does not match sum of linked reaction cross sections! Max diff: 0.27%

- fudge-4.0 Errors:

1. Calculated and tabulated Q values disagree.
reaction label 13: n[multiplicity:'2'] + Eu151 (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -5990869.244934082 eV vs -6.3101e6 eV!

2. Calculated and tabulated Q values disagree.
reaction label 14: n[multiplicity:'3'] + Eu150 (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -13924006.98449707 eV vs -1.42802e7 eV!
3. Calculated and tabulated Q values disagree.
reaction label 15: n + H1 + Sm151 (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -5285136.128570557 eV vs -5603640. eV!
4. Calculated and tabulated Q values disagree.
reaction label 16: n + H2 + Sm150 (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -8657028.868469238 eV vs -8894630. eV!
5. Calculated and tabulated Q values disagree.
reaction label 17: n + H3 + Sm149 (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -10386529.97189331 eV vs -1.06996e7 eV!
6. Calculated and tabulated Q values disagree.
reaction label 18: Eu153 + gamma (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: 8866138.023193359 eV vs 8550390. eV!
7. Calculated and tabulated Q values disagree.
reaction label 19: n + He4 + Pm148 (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: 1868336.603851318 eV vs 1564090. eV!
8. Calculated and tabulated Q values disagree.
reaction label 20: H1 + Sm152_s (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: 2972465.206390381 eV vs 2659450. eV!
9. Calculated and tabulated Q values disagree.
reaction label 21: H2 + Sm151_s (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -3060570.027648926 eV vs -3293530. eV!
10. Calculated and tabulated Q values disagree.
reaction label 22: H3 + Sm150_s (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -2399795.927856445 eV vs -2709480. eV!
11. Calculated and tabulated Q values disagree.
reaction label 23: He3 + Pm150_s (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -5835205.095092773 eV vs -6189840. eV!
12. Calculated and tabulated Q values disagree.
reaction label 24: He4 + Pm149_s (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: 9139000.434631348 eV vs 8833190. eV!

- njoy2012 Warnings:

1. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!
group...compute self-shielded group-averaged cross-sections (0): GROUPR/conver (0)

```
---message from conver---cannot do complete particle production for mt= 16
only mf4/mf5 provided
```

2. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!
group...compute self-shielded group-averaged cross-sections (1): GROUPR/conver (0)

```
---message from conver---cannot do complete particle production for mt= 17
only mf4/mf5 provided
```

3. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!
group...compute self-shielded group-averaged cross-sections (2): GROUPR/conver (0)

```
---message from conver---cannot do complete particle production for mt= 22
only mf4/mf5 provided
```

4. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!
group...compute self-shielded group-averaged cross-sections (3): GROUPR/conver (0)

```
---message from conver---cannot do complete particle production for mt= 28
only mf4/mf5 provided
```

5. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!
group...compute self-shielded group-averaged cross-sections (4): GROUPR/conver (0)

```
---message from conver---cannot do complete particle production for mt= 32
only mf4/mf5 provided
```

6. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!
group...compute self-shielded group-averaged cross-sections (5): GROUPR/conver (0)

```
---message from conver---cannot do complete particle production for mt= 33
only mf4/mf5 provided
```

7. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!
groupr...compute self-shielded group-averaged cross-sections (6): GROUPR/conver (0)

```
---message from conver---cannot do complete particle production for mt= 91  
only mf4/mf5 provided
```